

### **Abstract**

A combination one or more species of lactobacillus bacteria and one or more types of fibrolytic enzymes can be used to replace animal protein in cattle feed. The combination results in a better amino acid balance in the digestive tract of cattle resulting in a better utilization of nitrogen. Less water-soluble nitrogen compounds pass through the digestive tract resulting in less pollution. More nitrogen in the feed is converted to water insoluble compounds resulting in better feed utilization and less water-soluble pollution in the manure. The diseases carried by some animal protein additives, such as “mad cow” are not present in the additives of the present invention.